

Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

Claims 1-10 (Cancelled)

CLAIMS

11. ~~(new)~~(currently amended) Analog signal repeater system used in a power grid and distribution system where repeaters with signal gains are applied to ~~facilitate~~extend high-radio frequency transmission range across a number of termination cable junction arrangements in different physical positions with cables interconnecting them and stability for stable- utilization of repeater gains and for bandwidth improvement as a function of transmission range, across a signal transmission distance including power grid distribution and termination points comprising:

the signal repeater system with repeaters connected through differential signal couplers consisting of at least one signal coupler arrangement and at least two series impedances and at least one shunt impedance; whereby in at least one of said signal transmission distance range is constituting facilitated to accept a radio frequency gains repeater cascade at the junctions, wherein at least two of the electrically accessible junctions physical points include at least one repeater at each of said ~~points~~junctions, where signal couplers on cables of the junctions facilitate signal bypassing of the junctions and ~~where said repeater cascade is using not more than two frequency bands for one signal direction and where the combination of transfer losses and inserted dampening in each of the junctions between signal couplers at each of the junctions and inserted dampening increase signal isolation between ports of the repeaters at said the physical points junctions of said repeaters in any of said frequency band to control mitigate~~

problems from ~~interference~~ undesired signal coupling between ports of the repeaters between said ports of at least one of said physical points and between at least one of said ports in at least one of said physical points and one of said ports in at least one other of said physical points

12. ~~(new)~~ (currently amended) Analog signal repeater system according to claim 1, further comprising ~~said repeater cascade~~ the system to be using one of said repeaters for each transmission direction ~~in each repeater point~~ at each of said junctions and where said repeaters are using at least different frequency bands for said transmission directions in each repeater point to achieve duplex and signal transmission in more than one direction across said signal transmission distance enabled by the signal dampening in the junctions

13. ~~(new)~~ (currently amended) Analog signal repeater system according to claim 1, wherein
said ~~two~~ frequency bands being used by said repeaters to employ frequency conversion enabled by the signal dampening in the junctions

14. ~~(new)~~ (currently amended) Analog signal repeater system according to claim 1, further comprising an adapter connected to at least one of said repeaters allowing equipment with standardized modulation and protocol that include duplex system standards as in Docsis cable modem standards enabled by the signal dampening in the junctions

15. ~~(new)~~ (currently amended) Analog signal repeater system according to claim 1, wherein
~~said repeater cascade is~~ the repeaters at the junctions are using two frequency bands using two of said repeaters in at least one repeater point where said repeaters each repeat signals on the same frequency in one of said frequency

bands to provide full duplex transmission enabled by the signal dampening in the junctions

16. ~~(new)~~(currently amended) Analog signal repeater system according to claim 1, further comprising
at least one of said repeaters with said two way transmission to be interfaced to two-way wireless communication device enabled by the signal gain at the junctions

17. ~~(new)~~(previously added) Analog signal repeater system according to claim 1, wherein
the said isolation between ports in electrically accessible physical points consisting of conductor junctions is increased using toroids with magnetic material on at least two conductors while differential signal couplers are connected galvanically through capacitors to at least two conductors on the cable side and while at least one capacitor differentially provides a high frequency low impedance shunt impedance for at least two conductors on the junction side

18. ~~(new)~~(currently amended) Analog signal repeater system according to claim 1, wherein
at least one of ~~said repeater cascade~~junction is utilizing a single conductor for signal transmission in at least one direction between at least two of said repeaters enabled by the signal dampening in the junctions

19. ~~(new)~~(currently amended) Analog signal repeater system according to claim 1, wherein
at least one of ~~said repeater cascade~~to include at least one junction of conductors where junction is using at least one conductor ~~acts as additional said port for additional signal bypass~~ enabled by the signal dampening in the junctions

20. ~~(new)~~(previously added) Analog signal repeater system according to claim 1, wherein
the said isolation between ports in electrically accessible physical points consisting of conductor junctions is increased using toroids with magnetic material on at least two conductors while differential signal couplers are connected to a wire looping through said toroids on at least said two conductors on the cable side and while at least one capacitor differentially provides a high frequency low shunt impedance for at least two conductors on the junction side

The following is a clean version of Amendments to the Claims:

CLAIMS

11. (currently amended) Analog signal repeater system used in a power grid and distribution system where repeaters with signal gains are applied to extend radio frequency transmission range across a number of termination cable junction arrangements in different physical positions with cables interconnecting them for stable utilization of repeater gains and for bandwidth improvement as a function of transmission range, comprising:

the signal repeater system with repeaters connected through differential signal couplers consisting of at least one signal coupler arrangement and at least two series impedances and at least one shunt impedance; whereby at least one signal transmission range is facilitated to accept radio frequency gains at the junctions, wherein at least two of the electrically accessible junctions include at least one repeater at each of said junctions, where signal couplers on cables of the junctions facilitate signal bypassing of the junctions and where the combination of transfer losses and inserted dampening in each of the junctions between signal couplers at each of the junctions increase signal isolation between ports of the repeaters at the junctions to mitigate problems from undesired signal coupling between ports of the repeaters

12. (currently amended) Analog signal repeater system according to claim 1, further comprising the system to be using one of said repeaters for each transmission direction at each of said junctions and where said repeaters are using at least different frequency bands for said transmission directions in each repeater point to achieve duplex and signal transmission in more than one direction across said signal transmission distance enabled by the signal dampening in the junctions

13. (currently amended) Analog signal repeater system according to claim 1, wherein

said frequency bands being used by said repeaters to employ frequency conversion enabled by the signal dampening in the junctions

14. (currently amended) Analog signal repeater system according to claim 1, further comprising an adapter connected to at least one of said repeaters allowing equipment with standardized modulation and protocol that include duplex system standards as in Docsis cable modem standards enabled by the signal dampening in the junctions

15. (currently amended) Analog signal repeater system according to claim 1, wherein

the repeaters at the junctions are using two frequency bands using two of said repeaters in at least one repeater point where said repeaters each repeat signals on the same frequency in one of said frequency bands to provide full duplex transmission enabled by the signal dampening in the junctions

16. (currently amended) Analog signal repeater system according to claim 1, further comprising

at least one of said repeaters with said two way transmission to be interfaced to two-way wireless communication device enabled by the signal gain at the junctions

17. (previously added) Analog signal repeater system according to claim 1, wherein

the said isolation between ports in electrically accessible physical points consisting of conductor junctions is increased using toroids with magnetic material on at least two conductors while differential signal couplers are connected galvanically through capacitors to at least two conductors on the

cable side and while at least one capacitor differentially provides a high frequency low impedance shunt impedance for at least two conductors on the junction side

18. (currently amended) Analog signal repeater system according to claim 1, wherein

at least one junction is utilizing a single conductor for signal transmission in at least one direction between at least two of said repeaters enabled by the signal dampening in the junctions

19. (currently amended) Analog signal repeater system according to claim 1, wherein

at least one junction is using at least one conductor for additional signal bypass enabled by the signal dampening in the junctions

20. (previously added) Analog signal repeater system according to claim 1, wherein

the said isolation between ports in electrically accessible physical points consisting of conductor junctions is increased using toroids with magnetic material on at least two conductors while differential signal couplers are connected to a wire looping through said toroids on at least said two conductors on the cable side and while at least one capacitor differentially provides a high frequency low shunt impedance for at least two conductors on the junction side